GLOBAL CROP PRODUCTION REVIEW, 2004

Prepared by USDA's Joint Agricultural Weather Facility

The following is an annual review of regional crop production, comparing 2004 with the previous year. For both the northern and southern hemisphere, these summaries reflect growing season weather for crops that were harvested in the calendar year of 2004. For most countries, changes in production for 2004 are based on crop estimates released by the United States Department of Agriculture in February 2005.

Wheat and Coarse Grain Summary: In 2004, world wheat production increased by 13 percent over 2003. Wheat production increased in Canada, countries in the European Union, Turkey, Iran, Morocco, Tunisia, Russia, Ukraine, China, India, South Africa, and Argentina and declined in the United States, Algeria, Kazakstan, Pakistan, Mexico, Brazil, and Australia. Country-level changes in 2004 wheat production from 2003 are shown in Figure 1. World coarse grain production increased by 9 percent in 2004. Production increased in the United States, Canada, European Union, Ukraine, Iran, Morocco, Turkey, and China and declined in Mexico, Russia, Kazakstan, India, Argentina, Brazil, Australia, and South Africa.

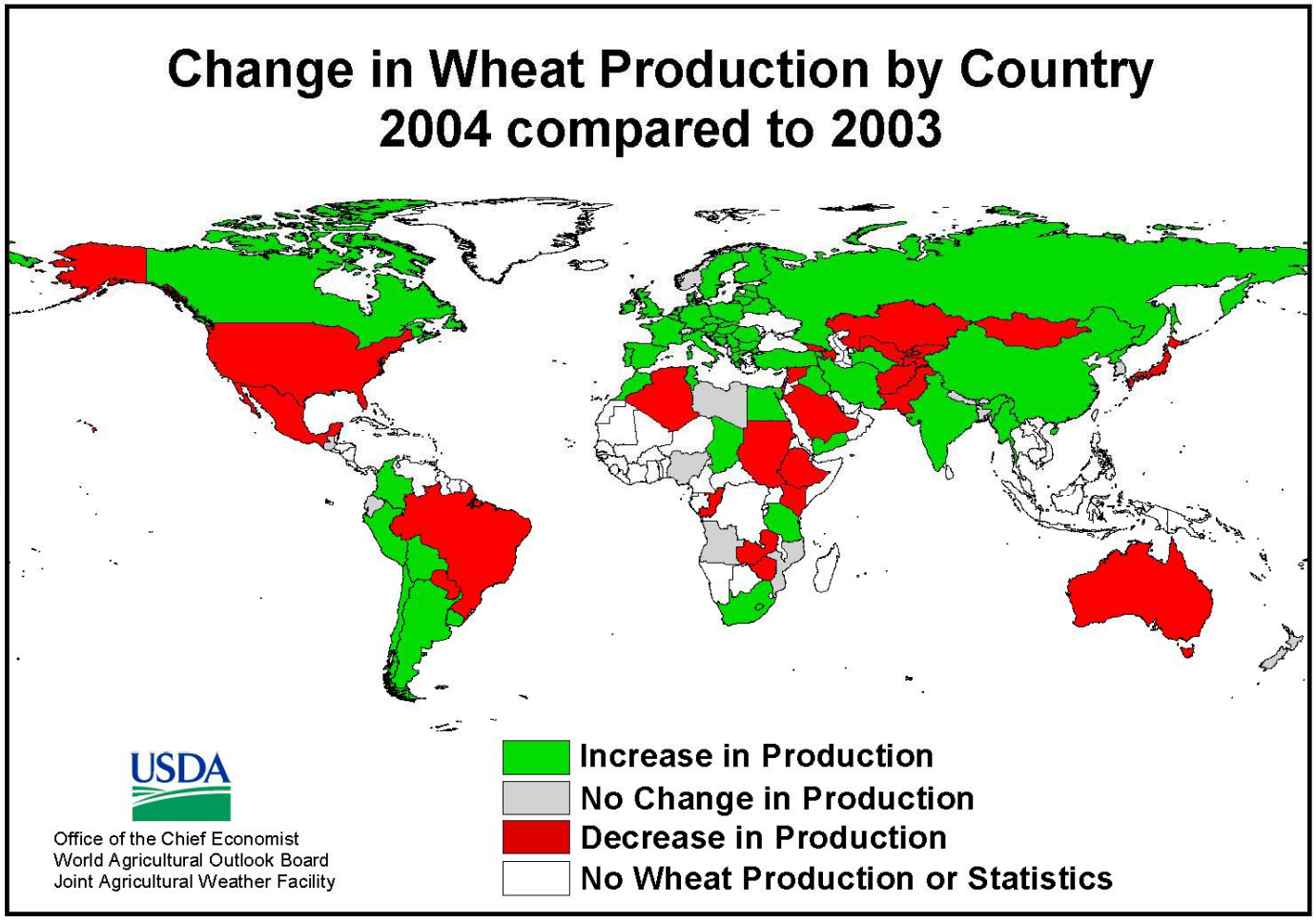

Figure 1. Country-level change in 2004 wheat production from 2003.

In the United States, wheat production (winter, spring, and durum) fell 8 percent from 2003. Despite timely spring rains in many wheat-producing areas, long-term drought and subsoil moisture shortages reduced wheat yield potential across parts of the High Plains. U.S. corn production was up 17 percent from the record established in 2003. Midwestern growing-season weather was nearly ideal, with abundant rainfall and minimal heat stress.

In Canada, wheat and barley production rose 10 and 7 percent, respectively, from 2003 due to a generally mild, wet weather pattern that dominated the Prairies for much of the spring and summer. This was a welcome change from recent years of drought and untimely dryness, while long-term moisture conditions improved in many previously dry growing areas. However, as a result of late plantings and below-normal summer temperatures, crops lagged the normal pace of development throughout the region for most of the growing season, placing the crop at an exceptionally high risk of damage from an autumn freeze. Consequently, an earlier-than-normal autumn freeze (on or about August 20) resulted in some damage and quality reductions, with reports of unusually large amounts of small grains registering as feed grade. In Ontario, corn production fell about 8 percent from last year as lower area more than offset excellent yields.

In the European Union (EU-25), the countries of France, Germany, the United Kingdom, Poland, Italy, and Spain account for about 80 percent of total wheat production. In 2004, growing season weather returned to normal after the harsh winter, drought, and summer heat wave of 2003. There were some lingering problems with dryness from the 2003 drought for winter grain planting in the United Kingdom, but for the most part, seasonable autumn rainfall provided adequate soil moisture for winter grain establishment. During the winter of 2003/04, near-normal temperatures and seasonable precipitation was a marked contrast to the wide temperature swings and winterkill events of the 2002/03 winter. There were only isolated winterkill events during 2004, occurring in southeast Poland and Slovakia. Near-normal spring rainfall benefited reproductive winter grains. There were no major problems with harvesting, except for excessive August rain in the United Kingdom, which reduced production and quality. For the major producing countries, 2004 wheat production increased 30, 10, 31, and 25 percent from 2003, in France, the United Kingdom, Germany, and Poland, respectively.

A return to favorable weather conditions also caused European Union coarse grain production to increase 22 percent, with corn and barley production increasing 32 and 13 percent, respectively. Near-normal summer rainfall and temperatures provided excellent growing conditions after the drought and heat wave of 2003. Corn production increased 20 to 30 percent from 2003 across most EU-25 countries. Hungary reported a 74 percent increase in corn production. Likewise, in most European Union countries, barley production increased 7 to 20 percent from the 2003 drought stricken crop. Only the United Kingdom and Lithuania reported barley production decreases of 7 and 13 percent, respectively. Production declines in the United Kingdom were related to the loss in area due to excessive rainfall during harvest.

Favorable weather also returned to Southeastern Europe, greatly increasing wheat and coarse grain production. In Bulgaria and Romania, wheat production increased 105 and 225 percent, respectively. In Romania, Serbia, and Bulgaria, corn production increased 85, 65, and 50 percent, respectively. Likewise, barley production increased 159, 50, and 111 percent.

In Russia, winter wheat is mostly grown in the Southern Region and southern areas of the Central and Volga Regions. Most of the spring wheat crop is grown from the Volga Region eastward through the Siberia Region. In 2004, growing conditions for the winter wheat crop were considerably better

than those in 2003, resulting in an 80 percent increase in production. In major winter wheat producing areas of southern Russia, wet weather in early September was followed by a drier weather pattern that prevailed during the remainder of the month, aiding fieldwork for winter wheat planting, but lowering topsoil moisture for crop establishment. Despite the lack of topsoil moisture, mild weather and adequate moisture in October and November favored crop establishment, and crops entered dormancy in better condition than the previous year. During the winter, unseasonably mild weather prevailed over most winter grain areas, providing favorable overwintering conditions for crops. There were a few brief episodes of bitter cold that overspread winter grain areas. In most cases, the extreme cold was of short duration and occurred in areas that were protected by an adequate snow cover, minimizing the threat for significant winterkill. In March, unusually mild weather caused winter wheat in major producing areas to break dormancy about 1 to 2 weeks earlier than usual. Near- to above-normal precipitation favored winter wheat development in April and May. Major winter wheat producing areas in the Southern Region experienced the second wettest June weather in at least the past 25 years, benefiting filling wheat, but hampering the start of large-scale winter wheat harvesting. Regarding spring wheat, below-normal rainfall and unseasonably mild weather in May helped fieldwork for spring grain planting. Near- to above-normal June precipitation favored crop emergence and establishment. These favorable weather conditions continued for spring wheat in Siberia, while hot, dry weather developed in the Urals in early July and persisted throughout key growth stages of the crop, reducing yield prospects. The declines in crop prospects were not made up in other areas that experienced more favorable weather, resulting in a 4 percent decline in spring wheat production over the previous year. Coarse grain production in Russia declined by 3 percent in 2004, mainly due to unusually high winterkill in key rye producing areas and a 7 percent decline in spring barley production. Spring barley is grown throughout most of Russia. In contrast, ideal growing season weather in key corn growing areas helped raise corn production 64 percent above the previous year.

In Ukraine, most of the wheat grown in the country consists of winter varieties. In the fall of 2003, dry weather in September delayed winter wheat planting in some southern and eastern areas. September's dryness was followed by above-normal precipitation in October, which provided much-needed moisture for winter grain emergence and establishment. In November, mild weather and adequate moisture continued to favor crop establishment, and winter grains entered dormancy during the second half of the month in much better condition than the previous year. Unseasonably mild weather prevailed over winter grain areas during most of the winter, providing favorable overwintering conditions for crops. Winterkill for winter grains was reportedly below average at 5 percent, well below the winterkill of 65 percent experienced the previous winter. Unusually mild weather in March prompted winter grains to break dormancy 1-2 weeks earlier than usual. Dryness returned to southern and eastern winter grain areas in March and April, but was followed by timely rain in May, benefiting winter grains in the highly moisture and temperature sensitive reproductive phase of development. Although wet weather in early July hampered early harvest activities, mostly dry weather during the second half of the month allowed harvest activities to accelerate. Overall, winter wheat production rose by over 450 percent above the previous year, when severe winter weather and spring drought damaged most of the crop. Coarse grain production increased by 47 percent from 2003 levels, with barley and corn production increasing by 62 percent and 29 percent, respectively. Ideal growing conditions for both spring barley and corn resulted in the sharp increase in production for these crops.

In Kazakstan, most of the wheat grown in the country is of a spring variety. Wheat production in 2004 declined sharply (14 percent) from 2003. In

May, unseasonably warm, dry weather prevailed throughout most of the country, helping fieldwork for spring grain planting. However, periodic heat prevailed throughout most spring grain areas during the month, causing rapid drying of topsoils. The dryness persisted throughout most of the major spring grain producing areas of north-central Kazakstan in June and July (see Figure 2), reducing yield prospects for crops as they progressed through the reproductive phase of development. While above-normal precipitation fell in some areas in early August, crops were not able to fully recover from the earlier heat and dryness. As a result, wheat production declined by 14 percent from a year earlier, and coarse grain production dropped 19 percent. Spring barley typically accounts for about 80 percent of Kazakstan's coarse grain production.

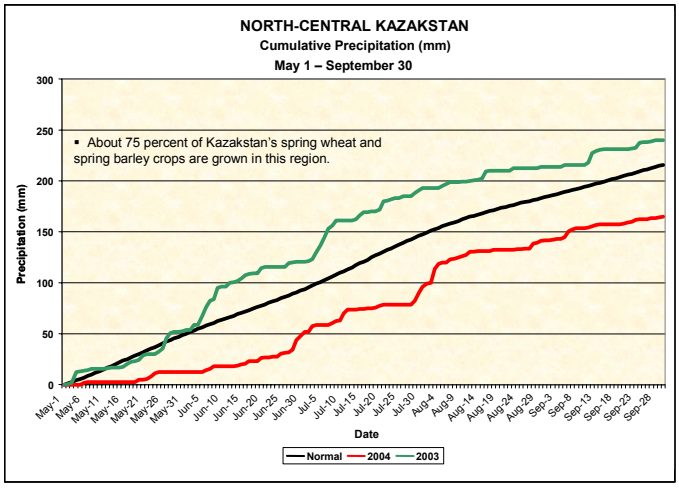

Figure 2. Cumulative precipitation for north-central Kazakstan.

In Turkey, winter wheat and barley production increased 5 and nearly 3 percent, respectively. In Iran, favorable growing season weather and a continued expansion in area boosted wheat production 9 percent and produced another year of record wheat production.

In northwestern Africa, 2004 growing season rainfall was above average, although lower than in 2003. In both Morocco and Tunisia, wheat production increased by 7 percent. In Algeria, a 27 percent reduction in wheat area more than offset increased yields. Wheat production decreased nearly 13 percent. In Algeria and Morocco, barley production increased by 7 and 5 percent, respectively. In Tunisia, lower yields reduced production by 14 percent.

In China, wheat production increased 4 percent due to favorable weather and timely rain throughout the growing season on much of the North China Plain. Corn production rose nearly 9 percent in 2004, from a combination of increased area and higher yields. Despite spring dryness in parts of northern Manchuria (Heilongjiang), timely summer rainfall throughout Manchuria and the North China Plain boosted crop yield potential.

In Southern Asia, an increase in both area and yield resulted in an 11 percent jump in winter wheat in 2004. Production fell slightly in Pakistan, as declining yields offset an increase in area. Indian coarse grain production fell about 20 percent in 2004, as sporadic monsoon showers fostered a drop in planted area and a 10 percent reduction in overall yields.

In the southern Hemisphere, following record production in 2003, Australian wheat production dipped approximately 18 percent in 2004. Similar to the 2003 growing season, generally favorable weather helped autumn wheat development. In Western Australia, however, winter and spring rainfall was less abundant than in 2003, causing slight declines in production. More significantly, in eastern Australia untimely heat and dryness stressed wheat during the heading and filling stages of development, causing more substantial declines in production. In South Africa, wheat production rose 17 percent from the previous year, mostly from increased area. Yield increases were marginal, as growing season weather disappointed farmers for the second consecutive season. In contrast, timely summer rains led to higher South African corn yields, although production was only slightly higher than in 2003 due to lower acreage.

In Argentina, corn production fell 10 percent as a lingering spring drought in major production areas of Cordoba fueled reductions in both area and yield. Winter wheat production rose about 19 percent due to an increase in yield and area, although rainy harvest weather reportedly impacted grain quality. Similarly, Brazilian corn production fell about 6 percent due to summer drought in the southern corn belt, but an excellent winter corn crop in the more northerly growing areas – notably Mato Grosso – prevented larger declines. Winter wheat production remained virtually unchanged from the previous year as increased area nearly offset lower yields.

Oilseed Summary: World oilseed production rose 16 percent in 2004. Oilseed production increased in the United States, Canada, European Union, China, India, Indonesia, and Brazil, and declined in Russia, Ukraine, and Argentina.

In North America, United States soybean production was the highest on record, up 28 percent from 2003. Generally favorable growing-season conditions in major Midwestern and Southern soybean-producing areas led to the sharp production increase. In Canada, rapeseed (canola) rose 13 percent as both area and yield continued to rebound from the past several seasons of Prairie drought. Similarly, soybean production jumped 35 percent to record levels due to record acreage and near-optimal growing conditions in Ontario.

In the European Union, 2004 total oilseed production increased 22 percent from 2003 due to improved weather. A 32 percent increase in rapeseed production greatly offset a nearly 6 percent decline in sunflowerseed production. Rapeseed production increased 43 percent in Germany and 14 percent in France due to a return to seasonable weather, following the severe drought and heat wave of 2003. Only the United Kingdom reported a nearly 10 percent decline in rapeseed production partly due to excessive rainfall during harvest. Sunflowerseed production declined in many countries due to reduced area, despite favorable weather that increased yields.

In Russia, growing season weather conditions were mostly favorable for the sunflower crop, and yields declined slightly from the previous year. In Ukraine, less favorable weather along with lower harvested area resulted in a 28 percent decline in sunflower production from the previous year.

In China, consistent spring rainfall and increased area boosted 2004 winter rapeseed production by 5 percent. Additionally, soybean production was up nearly 17 percent due in part to favorable weather throughout the growing season in Manchuria and the North China Plain.

In India, total oilseed production remained virtually unchanged in 2004. Winter rapeseed production dropped 6 percent from last year's record levels despite a slightly larger area. Summer oilseed production was mixed, as many major production areas were affected by periods of untimely dryness, including those during the height of the planting season. Soybean production, which is concentrated in parts of central India most affected by the erratic start to the 2004 monsoon season, declined 4 percent, as higher acreage offset a projected 20 percent drop from last year's record yields. Peanut (groundnut) production suffered only slight declines in yield and production, mainly due to above-normal monsoon rainfall in Gujarat and timely, late-season rains in important growing areas of India's southern interior.

At the start of the growing season in Argentina, lingering drought in Cordoba disrupted corn planting, and soybeans went into most of the late planted farmland. However, the impact of late-season dryness in eastern growing areas, exacerbated by the overall lateness of the crop, lowered soybean production by about 4 percent despite record acreage. Similarly, sunflower production dropped 14 percent, despite higher yields, as harvested area fell over 20 percent. Brazilian farmers also experienced a disappointing season, with production levels similar to 2003 in

spite of the fifth consecutive year of record planted area. The lowest yields since 1998 were the result of untimely dryness in major production areas of Rio Grande Do Sul (see Figure 3) and the spread of Asian Rust in the more northerly growing areas.

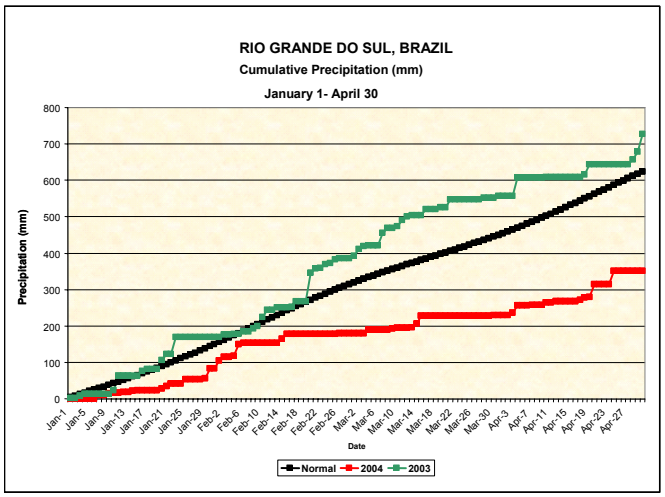

Figure 3. Cumulative precipitation for Rio Grande Do Sul, Brazil.

Rice Summary: World rice production rose 3 percent in 2004. Rice production increased throughout most of Southeast Asia, but overall production fell in South Asia.

In India, production was off slightly by 1 percent, despite an increase in yield. Planted acreage reportedly fell an estimated 1.5 million hectares because of the poor start to the monsoon. Production dropped about 3 percent in Bangladesh, which was plagued by flooding for much of the season. Pakistan recorded an increase of about 2 percent due to slightly higher yields. In Thailand, production dipped by over 3 percent due in part to an early end to the wet season while rice was still in the filling stage of development. In Vietnam, rice production in 2004 remained virtually unchanged from the previous year. In China, 2004 rice production rose over 12 percent, due to increases in area and yield.

Cotton Summary: World cotton production increased about 23 percent in 2004. Cotton production increased in the United States, Uzbekistan, China, India, Turkey, Argentina, and Brazil.

In the northern hemisphere, United States cotton production was up 26 percent from 2003 and reached a record high. Most of the U.S. cotton belt experienced favorable growing and harvest conditions, although excessive wetness caused local concerns across the southern Plains and the western Gulf Coast region. In Uzbekistan, favorable weather conditions during the growing season and fall harvest period resulted in a 22 percent increase in cotton production. In China, production increased by 30 percent. Despite wet weather in Shandong at the end of the season, yields in China increased 18 percent. Turkish production increased by nearly 4 percent due to favorable weather. In India, production rose 16 percent due to increased area and yield. Production in Pakistan rose 48 percent on significant increases in both yield and area.

In the southern hemisphere, Australian cotton production increased a meager 1 percent in 2004. Similar to the 2003 growing season, well-below normal rainfall was measured across much of eastern Australia. As a result, recovery from the devastating drought of 2002 remained slow, limiting soil moisture and irrigation supplies for cotton production. In Argentina, production jumped 79 percent due to a huge increase in area. Brazilian cotton production rose 50 percent from a combination of larger area and record yields. Both Argentina and Brazil recorded their largest cotton acreage since the 1990s.